

AMENDMENTS TO THE CLAIMS:

This listing of claims will replace all prior versions, and listings, of claims in the application:

1. (Currently amended) In an arrangement with a plurality of nodes making up a multiple hop wireless communication network for routing data packets over transmission paths, a method for efficient routing in said multiple hop wireless communication network, said method comprising:

providing link status information to a link status monitor by acquiring link status quality between nodes in the network;

the link status monitor updating a routing element with said link status information;

the routing element determining at least two possible routes with essentially similar link quality status for a data packet; and

the routing element routing said data packet via the at least two determined routes,

wherein the communication network is an ad hoc network.

2. (Previously presented) The method according to claim 1, further comprising combining said data packets at a destination node.

3. (Previously presented) The method according to claim 1 further comprising, replacing one of said data packets with parity bits for error detection and error correction purposes.

4. (Previously presented) The method according to claim 1, wherein said wireless link is a transmission system based on electromagnetic radiation with a frequency in the range of 100 kHz to 100 PHz.

5. (Previously presented) The method according to claim 4, wherein said transmission system is one or several of the following radio standards: IEEE 802.11, IEEE 802.15, IEEE 802.16 HiperLAN, HomeRF, Bluetooth, IR, UWB, JTRS, 3G, GPRS, and EDGE.

6. (Currently amended) A system for efficient routing in a communication network having a plurality of nodes, each node comprising:

link status acquiring means for acquiring information about link status between neighboring nodes;

updating means for updating routing means with said link status information;

determination means using said link status information for determining at least two possible routes with essentially similar link quality status for routing of a data packet; and

routing means for routing said data packet via said at least two determined routes,

wherein the communication network is an ad hoc network.

7. (Previously presented) A system according to claim 6, wherein communication between said nodes is wireless.

Claim 8 (Canceled)

9. (Previously presented) The system according to claim 6, further comprising replacing means for replacing one of said data packets with parity bits for error detection and error correction purposes.

10. (Previously presented) The system according to claim 7, wherein said wireless communication takes place over a transmission system based on electromagnetic radiation with a frequency in the range of 100 kHz to 100 PHz.

11. (Previously presented) The system according to claim 10, wherein said transmission system is one or several of the following radio standards: IEEE 802.11, IEEE 802.15, IEEE 802.16 HiperLAN, HomeRF, Bluetooth, IR, UWB, JTRS, 3G, GPRS, and EDGE.

12. (Currently amended) A node in a communication network having a plurality of nodes, said node comprising:

processing means for processing network control information;

storing means for storing network control information;

transmission means for transmitting data packets;

link status acquiring means for acquiring link information comprising link status and link quality between neighboring nodes;

determination means using acquired link information for determining at least two routes with essentially similar link quality status to a destination for routing of a data packet; and

routing means for routing said data packets via said at least two determined routes,

wherein the communication network is an ad hoc network.

13. (Previously presented) The node according to claim 12, wherein communication between nodes is wireless.

Claim 14 (Cancelled)

15. (Previously presented) The node according to claim 12, further comprising replacing means for replacing one of said data packets with parity bits for error detection and error correction purposes.

16. (Previously presented) The node according to claim 12, wherein said wireless communication takes place over a transmission system based on electromagnetic radiation with a frequency in the range of 100 kHz to 100 PHz.

17. (Previously presented) The node according to claim 16, wherein said transmission system is one or several of the following radio standards: IEEE 802.11, IEEE 802.15, IEEE 802.16 HiperLAN, HomeRF, Bluetooth, IR, UWB, JTRS, 3G, GPRS, and EDGE.

18. (Previously presented) A wireless communication network comprising a system according to claim 6, comprising one or several nodes.

Claim 19 (Canceled)